



Ref: AF CON 21/2

Clearing Mikania

1. Purpose

1.1 The purpose of this practice note is to provide technical guidance to relevant government departments, landscape contractors and interested parties on the clearance of Mikania.

2. Background

2.1 The scientific name of Mikania is *Mikania micrantha* Kunth. It is an exotic perennial herbaceous vine belonging to the family Compositae. It is native to tropical South and Central America but is now widely distributed in India, Southeast Asia and South China including Guangdong and Hong Kong.

2.2 Similar to the habit of other climbers, Mikania climbs up other plants to reach the canopy for better sunlight. At the same time, its leaves cover up the host plants and reduce the sunlight reaching the host plant for photosynthesis. The growth of the host plant may be affected eventually. Mikania sprawls out rapidly in spring and summer which is the reason for its name “mile-a-minute weed”. Moreover, it reproduces vigorously by both vegetative and sexual reproduction.

2.3 Mikania is considered as a noxious weed affecting plantation crops and afforestation programme in Southeast Asia and India. In Hong Kong, it is usually found in low-lying, moist and disturbed areas with full sunlight such as wasteland, abandoned agricultural land, fishpond bund, roadside and woodland edge around village environs. Mikania has not caused significant adverse impact on established woodland areas.

3. The Characteristics of Mikania

3.1 Mikania is a perennial herbaceous vine. It has characteristic opposite, heart-shaped leaves, margins irregularly coarsely dentate, 4 - 13cm long. Mikania has much branched and hairless stems, and numerous small heads of densely clustered white flowers with fragrant. Mikania produces small seeds, black in colour, with a terminal tuft of white bristles for wind dispersal. A few photographs of Mikania are attached at

the end of the Note for reference.

3.2 In South China region, Mikania starts flowering in September and sets fruits from November to February the next year. It produces numerous flowers and a huge amount of seeds which can germinate rapidly with a very high germination rate. These properties are attributable to the high spreading rate of Mikania. However, low temperature and inadequate sunlight will suppress its fruiting, seed germination and growth of seedlings. As such, Mikania seldom grows in the shade, being restricted to sunny locations.

4. Methods of Clearing Mikania

Physical control

4.1 Like all other climbers, Mikania can either be cleared manually by slashing it with hand tools or mechanically by using a brushcutter. The stem should be cut off as close to the ground as possible and the aerial part should be removed and disposed of properly. For those which hang on trees, the aerial part could be cleared up to about 3 metres from the ground while the rest will wither and die off naturally. However, there may be regrowth from the bases and repeated clearing should be applied as and when necessary.

Chemical control

4.2 As Mikania may grow from slashed stem fragments and regrowth from base is rapid, chemical control with systemic herbicide seems to be more effective in controlling the species as it kills the entire plants. Mikania is probably susceptible to many herbicides such as glyphosate and Sulfometuron-methyl. However, application of herbicide is not suitable for sites near water sources, active agricultural land, gardens and residential areas. Moreover, after the application, Mikania and other vegetation in the treated area might wither altogether which could be unsightly for a period of time. Skilled workers are also required for the application with necessary precautionary measures. When the surrounding environment does not permit the use of herbicide, weeding of Mikania with physical means should be carried out.

5. Important Precautions

- **To clear Mikania from a safe and firm position.** Mikania often grows vigorously and may cover up the entire area including the ground and the canopy. The workers should pay extra care not to fall into caves, cliffs or crevices that have been covered up by Mikania.

- **To properly dispose of Mikania that has been cut off.** The aerial parts that have been cut off should not be left on the ground but should be packed in bags for proper disposal. Roots of Mikania can grow from nodes of stems that have been cut off and regenerate readily.
- **To clear Mikania before it sets fruits.** The fruiting period of Mikania is from November to February the next year, but may vary across different years. The seed of Mikania is light weighted and is easily dispersed by wind. Therefore, it would be advisable to treat Mikania physically or chemically before it sets fruits and produces seeds so as to prevent it from further spreading.
- **To use only registered herbicides and strictly follow the instructions stipulated on the product labels.** Only registered herbicides should be used and the recommended application rate and safety precautions as stipulated on the product label should be strictly followed. The user should wear the necessary protective clothing and gears during the application of herbicides and properly dispose of them and the empty containers after the application. If the product label specifies that entry into the treated area should be prohibited for a certain period after the application of herbicide, warning signs showing the re-entry prohibition period should be erected at the application site.

6. Additional Remarks

6.1 This Practice Note aims at providing general guidance on the clearing of Mikania for reference only and the users may need to carefully consider other site specific requirements. Advice should also be sought from relevant authorities or landowners regarding the necessary arrangement prior to conducting any Mikania clearance work. Various departments or concerned parties may appoint landscape contractors, skilled landscape workers or gardeners to clear Mikania in areas under their jurisdictions.

6.2 For general information, Agriculture, Fisheries and Conservation Department is responsible for vegetation maintenance inside Country Parks and Special Areas. Leisure and Cultural Services Department is responsible for maintaining vegetation in public parks, open spaces and along public roads while Highways Department is responsible for that on their SIMAR slopes and within the boundary of expressways. Vegetation maintenance on unallocated and unleased Government land not maintained by other Government departments is under the jurisdiction of respective District Land Offices.

Agriculture, Fisheries and Conservation Department



Mikania micrantha (Top) in habitat; (Middle) herbarium specimen; (Bottom) a seed with a terminal tuft of white bristles.

References

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